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REMARKS

I. Introduction

Upon entry of the present amendment, new claims 47-54 will be pending in this application. Claims 1-46 have been cancelled. Support for the claim amendments and new claims appears in the Figures and the specification, specific portions of which will be referred to below. Based on the following remarks, Applicants respectfully request reconsideration and allowance of the pending claims.

II. 35 U.S.C. § 102

The Examiner has rejected various of the cancelled claims under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,156,625 to Marchetti et al. or as being anticipated by U.S. Patent No. 5,645,606 to Oehy et al. Claims 1-46 have been cancelled, and new claims 47-54 have been added, in an effort to cooperate with the Examiner and to place the claims in condition for allowance. The locking mechanism of the claimed prosthesis is achieved by the spherical head engaging the frusto-conical wall of the acetabular cup. The structure is self-locking and provides a substantially fluid tight relationship that prevents leakage of polymer wear debris. New claim 47 has been drafted to include limitations that respond to the Examiner's rejections and that more clearly specify the elements of the claimed prosthesis.

Among other limitations, new independent claim 47 requires a prosthetic component having first and second surfaces, wherein the second surface is oriented toward a bone in which the component is to be implanted; and at least two openings extending from the first

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surface to the second surface; each opening comprising (i) an upper portion comprising an extended non-threaded frustoconical taper section extending through a substantial portion of the opening and (ii) a lower portion. New claim 47 also requires an insertion member having a head which includes a non-frustoconical contact surface that comprises a slice of a sphere, the curved portion of the slice adapted to contact the frustoconical taper section of the upper portion, whereby the contact between the non-frustoconical contact surface of the head and the frustoconical contact taper section of the opening (i) creates a self locking relationship to lock the insertion member in one of a plurality of desired angles relative to the prosthesis so that the insertion member and the prosthesis form a rigid physical construct at each of the angles; and (ii) forms a substantially fluid tight seal between the head and the opening, thereby preventing the escape of polyethylene wear particles to the outside of the prosthetic component; and wherein (a) the head does not contact the lower portion of the opening; (b) the head does not protrude beyond the first surface; and (c) every opening is adapted to receive at least an aperture cover, a screw, a peg, and a spike.

None of the cited references disclose an implantable prosthesis having all of the limitations of new claim 47. Marchetti et al. fails to disclose an insertion member having a head which includes a non-frustoconical contact surface that comprises a slice of a sphere, the curved portion of the slice adapted to contact the frustoconical taper section of the upper portion, whereby the contact between the non-frustoconical contact surface of the head and the frustoconical contact taper section of the opening (i) creates a self locking relationship to lock the insertion member in one of a plurality of desired angles relative to the prosthesis so that the insertion member and the prosthesis form a rigid physical construct at each of the

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angles, as required by new claim 47. Marchetti et al. also fails to disclose that contact between a non-frustoconical contact surface of the head and a frustoconical contact taper section of the opening forms a substantially fluid tight seal between the head and the opening, thereby preventing the escape of polyethylene wear particles to the outside of the prosthetic component, as required by new claim 47. Finally, all of the cavities of Marchetti et al. are not adapted to receive at least an aperture cover, a screw, a peg, and a spike, as also required by claim 47. For at least these reasons, Marchetti et al. does not disclose all of the limitations of new claim 47. New claim 47 is therefore patentable over Marchetti et al. The dependent claims are patentable for at least the reasons independent claim 47 is patentable, and may be patentable for additional reasons.

Oehy et al. fails to disclose all of the limitations of new claim 47 at least because Oehy et al. discloses a compression screw 14, which is not self-locking, as required by the claims. New claim 47 specifically recites an insertion member having a head which includes a non-frustoconical contact surface that comprises a slice of a sphere, the curved portion of the slice adapted to contact the frustoconical taper section of the upper portion, whereby the contact between the non-frustoconical contact surface of the head and the frustoconical contact taper section of the opening (i) creates a self locking relationship to lock the insertion member in one of a plurality of desired angles relative to the prosthesis so that the insertion member and the prosthesis form a rigid physical construct at each of the angles; and (ii) forms a substantially fluid tight seal between the head and the opening, thereby preventing the escape of polyethylene wear particles to the outside of the prosthetic component.

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Applicants have also included the limitation specifying the interaction between the head which includes a non-frustoconical contact surface that comprises a slice of a sphere, the curved portion of the slice adapted to contact the frustoconical taper section of the upper portion, whereby the contact between the non-frustoconical contact surface of the head and the frustoconical contact taper section of the opening (i) creates a self locking relationship to lock the insertion member in one of a plurality of desired angles relative to the prosthesis so that the insertion member and the prosthesis form a rigid physical construct at each of the angles. This language is added to clarify the fluid tight, self locking aspect of the prosthesis, and to respond to the Examiner's comments on page 7 of the March 9, 2007 Office Action. For at least these reasons, Oehy et al. does not disclose all of the limitations of new claim 47. New claim 47 is therefore patentable over Oehy et al. The dependent claims are patentable for at least the reasons independent claim 47 is patentable, and may be patentable for additional reasons.

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CONCLUSION

For at least the above reasons, Applicants respectfully request allowance of all pending claims and issuance of a patent containing these claims in due course. If there remain any additional issues to be addressed, the Examiner is invited to contact the undersigned attorney at 404.815.6188.

Respectfully submitted,

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